Mohawk Tannery Site Fact Sheet

EPA Plans Cleanup for Waste Disposal Areas

July 2002

The Cleanup Proposal...

Because approximately 60,000 cubic yards of contaminated waste left at the Mohawk Tannery Superfund Site could pose a health risk, EPA proposes the following early cleanup plan:

√ Excavate waste from known disposal areas to remove sources of contamination that people could come in contact with.

√ Transport excavated waste off-site to a permitted facility for disposal.

√ Backfill the excavated areas with clean fill and revegetate.

Come learn more about the cleanup.

Find out about the proposed cleanup plan at a public informational meeting scheduled for Wednesday, August 7th in Nashua, NH. At the meeting, EPA and the New Hampshire Department of Environmental Services (NH DES) will summarize the cleanup proposal and will be available to respond to your questions and concerns about the cleanup and how it may affect you.

Public Meeting
7:00 - 9:00 p.m.
Wednesday, August 7th

Public Hearing
7:00 - 9:00 p.m.
Tuesday, August 20th

All Events Will be held at the
Nashua City Hall Auditorium
229 Main Street

For more information about the meeting, or should you have specific needs or questions about the facility and it's accessibility, please contact EPA Community Involvement Coordinator, Angela Bonarrigo toll free at:
888-372-7341 x 81034

What do you think?

EPA wants to hear from you before selecting a cleanup approach for the site.

EPA is accepting public comment on this cleanup proposal from July 30 to August 29, 2002. You do not have to be a technical expert to comment - your comments can include any concern or preference you have about the cleanup proposal.

To comment formally, you may:

Offer oral comments during the public hearing on Tuesday, August 20, 2002.

Send written comments postmarked no later than August 29, 2002 to:

Neil Handler
Project Manager
U.S. EPA New England
Suite 1100 (HBO)
1 Congress St.
Boston, MA 02114

E-mail comments by August 29, 2002 to:

handler.neil@epa.gov

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act, (Section 117) the law that established the Superfund program, this document summarizes EPA's cleanup proposal. For detailed information on the options evaluated for use at the site, see the Mohawk Tannery Engineering Evaluation / Cost Analysis available for review at the information repositories located at the Nashua Public Library and at EPA's One Congress Street Office in Boston.

A Brief Overview of the Site

The Mohawk Tannery Site (a.k.a. Granite State Leathers) is located in Nashua, New Hampshire at the intersection of Fairmount Street and Warsaw Avenue. The site consists of two contiguous properties: a developed parcel to the north, and an undeveloped parcel to the south. Each parcel is about 15 acres. The Nashua River runs along the western edge of the site. Residential neighborhoods are located to the east and southeast of the site and the Fimble Door Company is located to the north. Although the tannery shut down in 1984, the main building has been intermittently used by the owner for storage purposes.

While operating, the tannery used numerous hazardous substances in the preparation and tanning of animal hides including chromium, pentachlorophenol, and 4-methylphenol. Dioxin has also been found at the site and is believed to be a by-product associated with the use of pentachlorophenol and other chlorinated phenolic compounds in the treatment of hides. EPA investigations concluded that during the time that the Tannery operated, hazardous substances such as those mentioned above, were discharged directly into the Nashua River and also deposited into six disposal areas at the site (see Areas 1-4 and 6-7 on Figure 1).

Why is cleanup needed?

Although tannery operations ceased over 18 years ago, the waste which accumulated in the disposal areas over its many years of operation has been left in place and accessible to people, animals, and the environment. The contaminants in the open lagoon, as well as other disposal areas, pose a potential risk to adults and children trespassing onto the site.

The property, although formerly industrial, has been re-zoned residential by the City of Nashua. Future development of the site is very likely, given its close proximity to downtown Nashua. Residential development of the site in its present condition would present risks to the public because of the contaminants present in the soils.

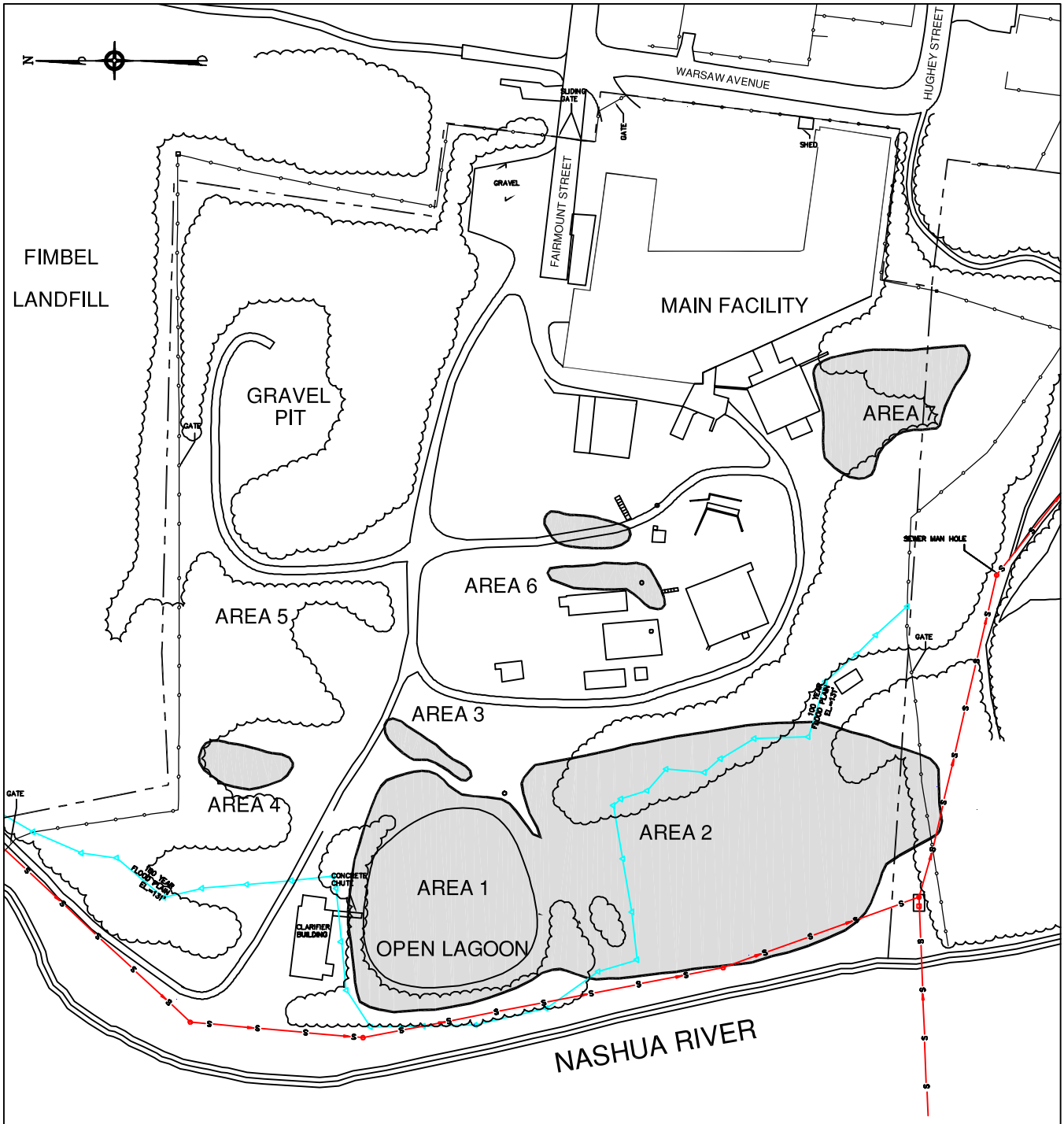
The presence of buried waste at the site is also of ecological concern. Much of the waste is in contact with the shallow groundwater which flows into the nearby Nashua River. Two of the largest disposal areas, containing over 90% of the waste disposed of on-site, are located approximately sixty feet from the Nashua River, within the 100-year floodplain. In the event of a flood, significant quantities of hazardous substances could be released into the river.

What is a NTCRA and Why is One Being Recommended at the Site?

The Superfund law allows EPA to implement cleanup actions under "removal" or "remedial" authorities specified in the statute. The approach EPA takes depends on many factors. Removal actions are often used to respond to emergency or time-critical situations.

A Non-Time-Critical Removal Action, or NTCRA is undertaken if EPA has more than six months of planning and preparation time before cleanup must begin, but prompt action is still needed to stop or substantially reduce a release or threatened release of hazardous substances. EPA uses an Engineering Evaluation/Cost Analysis (EE/CA) to develop and evaluate NTCRA cleanup options. A preferred cleanup approach is then presented to the public for review and comment. After evaluating the comments received, EPA prepares an Action Memorandum documenting the cleanup approach for the site. Implementing a NTCRA usually achieves a more rapid risk reduction in comparison to more traditional Superfund remedial approaches.

The portions of the site addressed by the EE/CA and discussed in this fact sheet qualify for a NTCRA because of the risks posed to public health and the environment by the hazardous substances detected in the six waste disposal areas at the site. These releases are serious enough that EPA has recommended that they be cleaned up under the NTCRA process rather than wait for the completion of the traditional Remedial Investigation and Feasibility Study of other potentially impacted areas at the site.



NOTES:
1. ALL LOCATIONS ARE TO BE CONSIDERED APPROXIMATE.
2. PLAN NOT TO BE USED FOR DESIGN.

LEGEND

- SEWER LINE & MANHOLE
- 100 YEAR FLOODPLAIN BOUNDARY
- FENCE
- APPROXIMATE PROPERTY LINE
- ESTIMATED LIMITS OF SLUDGE/WASTE

GRAPHIC SCALE

0′ 150′

1 INCH = 150 FEET

FIGURE 1
EXTENT OF SLUDGE/WASTE
MOHAWK TANNERY SITE
NASHUA, NEW HAMPSHIRE

Four Kinds of Cleanup

EPA looks at numerous technical approaches to determine the best way to reduce the risks presented by a Superfund site. The EPA then narrows the possibilities to approaches that would protect human health and the environment. Although reducing risks often involves combinations of highly technical processes, there are generally only four basic cleanup options.

☐ **Take limited or no action:** Leave the site as it is, or just restrict access and monitor it.

☐ **Contain contamination:** Leave contamination where it is and cover or contain it to prevent exposure to, or spread of, contaminants. This method reduces risks from exposure to contamination, but does not destroy or reduce it.

☐ **Move contamination off site:** Remove contaminated material (soil, groundwater etc.) and dispose of it or treat it elsewhere.

☐ **Treat contamination on site:** Use a chemical or physical process on the site to destroy or remove the contaminants. Treated material can be left on-site or disposed of in an off-site hazardous waste facility.

The Three Criteria for Choosing a NTCRA Cleanup

EPA examines the ***effectiveness, implementability, and cost*** of each cleanup option considered in an EE/CA. EPA uses these criteria to balance the pros and cons of cleanup alternatives and to select a preferred cleanup option.

Effectiveness is measured by examining:

- Overall protection of human health and the environment
- Compliance with ARARs (Applicable or Relevant and Appropriate Requirements - laws and regulations that will guide the cleanup)
- Short-term and Long-term effectiveness and permanence
- Reduction of toxicity, mobility or volume of contamination through treatment

Implementability is measured by examining:

- Technical and Administrative feasibility
- Availability of services and materials
- Acceptance by the State and Commuity

Cost is measured by examining:

- Direct and indirect capital costs
- Post-removal site control costs
- Present worth costs

Table 1 shows an abbreviated comparison of the NTCRA cleanup options considered for the site. More details are available in the EE/CA. Once EPA receives comments from the state and community, it will select a final cleanup approach for the waste disposal areas.

EPA Evaluates Cleanup Options:

EPA analyzed several actions and technologies that could be used to clean up the six waste disposal areas at the site. In doing so, EPA developed three cleanup options that could achieve the removal action objectives identified for the project. These cleanup options are:

1) Alternative 1: Excavation and Off-Site Disposal

2) Alternative 2: Excavation and On-Site Disposal

3) Alternative 3: Excavation and Off-site Incineration

Based on the data gathered during the EE/CA and other historical investigations, EPA has assumed that the waste at the site is not classified as a RCRA (Resource Conservation and Recovery Act) hazardous waste. However, based on the sulfide concentrations found in Area 1, it is possible that the waste from this one area could be considered a hazardous waste. As a result, scenarios under which the material from Area 1 would be considered a RCRA hazardous waste were also analyzed.

EPA compared each of the above cleanup options using the criteria of *Effectiveness, Implementability, and Cost* (for details on these criteria see box in previous column). This comparison allowed EPA to select Alternative 1 as its preferred alternative. Alternative 1, which is described in greater detail on page 6, consists of excavating the waste from the six on-site disposal areas and transporting this material off-site to a permitted facility for disposal.

Table 1
Comparison of Cleanup Alternatives

The Criteria	Alternative 1 * Excavation and Off-Site Disposal	Alternative 2 Excavation and On-Site Disposal	Alternative 3 Excavation and Off-Site Incineration
EFFECTIVENESS (protects public health and the environment and meets removal objectives)	Yes	Yes Provided on-site landfill is properly maintained; also places restrictions on future use of site	Yes
IMPLEMENTABILITY (can it be done?)	Yes	Yes	Yes
COST (total present worth)	Alt. 1A: $14,946,000 Alt. 1B: $20,435,000 Alt. 1C: $22,826,000	Alt. 2A: $ 6,300,000 Alt. 2B: $ 6,300,000 Alt. 2C: $19,156,000	Alt. 3-U.S.: $69,722,000 Alt. 3-CAN: $50,160,000
NH DES ACCEPTANCE	To be determined after the public comment period		
COMMUNITY ACCEPTANCE	To be determined after the public comment period		
TIME TO COMPLETE REMOVAL ACTION (time for on-site activities)	12 months	16 months	12 months

* EPA's recommended alternative

Yes Meets or exceeds criterion

Costs were developed for various sub-options for each alternative, depending on waste classification and disposal facility location:

Alternatives 1 and 2 sub-alternatives:
- A – All waste non-hazardous
- B – Area 1 waste hazardous, disposal at suitable U.S landfill
- C – Area 1 waste hazardous, disposal at suitable Canadian landfill

Alternative 3 sub-alternatives:
- 3-US – All waste disposed at U.S. incineration facility
- 3-CAN – All waste disposed at Canadian incineration facility

A Closer Look At EPA's Proposal. . .

EPA's proposal to address the risks posed by the waste at the Mohawk Tannery site involves excavating this material from the six known disposal areas and then transporting the waste off-site to a permitted facility for disposal. The contaminants found in the waste present a threat to public health and the environment.

Based on the sampling information obtained during the EE/CA, EPA believes that the waste can be safely disposed of in a Subtitle D landfill (a landfill designed for non-hazardous wastes). EPA has estimated that there are approximately 60,000 cubic yards of waste which will have to be removed from the site. During the excavation of the waste, odor control measures will be used at the site to minimize any impacts to the surrounding community. In addition, during the excavation EPA will perform air monitoring to ensure that the public as well as on-site workers are protected. EPA is considering alternative routes for transporting wastes off-site such as through the Fimbel Door property in an effort to minimize any impacts to the surrounding community. Excavated areas would be backfilled with clean fill and re-vegetated to minimize any problems with erosion. Based on the large volume of material to be removed from the site EPA estimates that it may take approximately 12 months to complete the cleanup of the disposal areas at a cost of approximately $15 million.

IMPACTS TO THE COMMUNITY

- All of the disposal options would involve excavation and therefore would present some short-term inconvenience and risks. To minimize the impacts and risks, steps will be taken to control dust, odors, and noise during excavation and off-site transportation.
- Excavation and off-site disposal will increase local truck traffic and noise. EPA will work with the community to identify appropriate transportation routes and hours of operation for the cleanup.
- Workers who implement the cleanup will be protected through the use of appropriate protective gear and proper safety practices. The public as well as workers will be further protected through air monitoring for the principle contaminants of concern. Measures will be taken to control dust as necessary.

Cleanup Actions beyond the NTCRA

Although the NTCRA will clean up much of the site, EPA is proceeding with a separate investigation of other areas at and adjacent to the Mohawk Tannery site which might have been impacted by past operations and waste disposal practices. Such potentially impacted areas include the groundwater, on-site buildings, Nashua River, and the undeveloped parcel to the south. Through a Cooperative Agreement issued by the EPA, the NH DES is in the process of initiating a remedial investigation of these other areas. The remedial investigation or RI, will determine the sources, nature, and extent of contamination and evaluate any potential health or environmental risks. The RI is scheduled to begin in the Fall of 2002 and will take approximately 18 months to complete. A long-term cleanup approach will be selected upon the completion of the RI and subsequent Feasibility Study.

Why Does EPA Recommend this Alternative?

EPA compared Alternative 1 (excavation of the waste and off-site disposal at a permitted facility) to the other alternatives as part of the EE/CA analysis (see Table 1 for an overview of this comparison). The alternatives evaluated in detail present similar initial challenges for implementation since all three alternatives require excavation of the waste. However, Alternative 1 is overall the easiest to implement since this alternative has the fewest issues associated with locating an off-site disposal facility capable of accepting wastes from the site. This is in contrast to Alternative 2 (excavation and disposal in a on-site landfill) which requires an engineered solution and long-term operation and maintenance, and Alternative 3 (excavation and off-site disposal through incineration) for which there are a limited number of incineration facilities permitted to accept dioxin contaminated wastes.

The cost of Alternative 1 is less than Alternative 3 but it is more than Alternative 2. However, the benefits of Alternative 1 appear to outweigh the cost advantage of Alternative 2 since it permanently removes contaminants from the site and eliminates the possibility for people to be exposed to them at some future date.

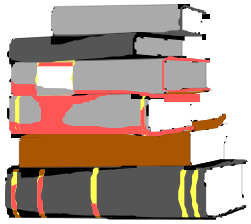
All three alternatives are effective and protective of human health and the environment. Alternative 3 is the only alternative which satisfies the statutory preference for treatment. When Alternatives 1 and 2 are compared for effectiveness, the primary advantage of Alternative 1 is that it does not require any long term operation and maintenance and it places fewer restrictions on the future use of the property. Based on these perceived advantages, Alternative 1 was selected as the recommended alternative.

Next Steps...

EPA hopes to have reviewed all comments from the public and completed the preparation of the Action Memorandum by September of 2002. The Action Memorandum and a summary of the responses to public comments will be made available to the public at the Nashua Public Library and through the EPA Records Center in Boston. Upon completion of the Action Memorandum, EPA will announce the decision through the local news media and community mailing list.

For More Detailed Information

To help the public understand and comment on the proposal for the site, this publication summarizes a number of reports and studies. All of the technical and public information publications which form the basis of EPA's recommnedation are available at the following information repositories:



Nashua Public Library
Court Street
Nashua, New Hampshire
(603) 589-4600

EPA Records Center
1 Congress Street
Boston, Massachusetts
(617) 918-1440
toll free: 1-888-372-7341 x 81440
Please call to schedule an appointment

What is a Formal Comment?

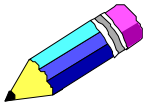
During the 30-day public comment period, EPA will accept formal written comments and hold a public hearing to accept formal verbal comments. EPA uses public comments to improve the cleanup proposal.

To make a **formal** comment, you need only to speak during the public hearing on August 20, 2002 or submit a written comment during the comment period.

Federal regulations require EPA to distinguish between "formal" and "informal" comments. While EPA uses your comments throughout site investigation and cleanup, EPA is **only required to respond in writing to formal comments.**

EPA will review the transcript of all formal comments received at the hearing, and all written comments received during the public comment period, before making a final cleanup decision. EPA will then prepare a written response to all formal written and oral comments received.

Your formal comment will become part of the official public record. The transcript of comments and EPA's written responses will be issued in a document called a Responsiveness Summary when EPA releases the final cleanup decision.



Fold, staple, stamp, and mail

place stamp here

Mr. Neil Handler
US EPA
One Congress Street, Suite 1100
(HBO)
Boston, MA 02114-2023

Send us Your Comments

Please provide EPA with your written coments about the proposed plan for the Mohawk Tannery Site. You can use the form below to send written comments, or email comments to: handler.neil@epa.gov. Please mail this form and any additional written comments, postmarked no later than

August 29, 2002 to:

Neil Handler

U.S. EPA

1 Congress St., Suite 1100 (HBO)

Boston MA 02114

fax: 617-918-1291

Comments Submitted by:_____ (Attach additional sheets as needed)